

Epitonium (Asperiscala) billeeana (DUSHANE & BRATCHER, 1965)
non *Scalina billeeana* DUSHANE & BRATCHER, 1965

BY

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SINCE THE PUBLICATION of the description of *Scalina billeeana* DUSHANE & BRATCHER, 1965, it has been suggested that the species was erroneously placed in the genus *Scalina*. CLENCH & TURNER (1951, p. 287) regard *Scalina* as a subgenus of *Amaea* while KEEN (1958, p. 278) treats *Scalina* as a full genus. Regardless of the course adopted, the species in question, *Scalina billeeana*, shows no particular affinity to either of these two generic taxa.

We are provisionally placing *Scalina billeeana* in the genus *Epitonium*, subgenus *Asperiscala* DE BOURY, 1909, which is characterized by fine spiral striae. The species "*Scalina*" *billeeana* differs from any known species of *Amaea* or *Scalina* in having an open umbilicus. It also differs in having a lighter, more fragile shell. The complete number of spiral ribs appears at a very early stage. In *Epitonium billeeana* the numerous spiral ribs are present on the third whorl with little appreciable increase in number on subsequent whorls, while *Scalina ferminiana* DALL, 1908 (p. 316; plt. 8, fig. 8) shows one strong spiral rib on the first three whorls, adding more spiral ribs in the following whorls until the final number is reached.

Another difference is the habitat. *Epitonium billeeana* occurs in shallow water and is parasitic on the coral *Tubastrea tenuilamellosa* (MILNE-EDWARDS & HAIME, 1848), while *Scalina* species are dredged on soft, silty mud bottoms.

In general proportions, *Epitonium billeeana* resembles *E. (Asperiscala) frielei* (DALL, 1889) (CLENCH & TURNER, 1952, p. 301, plt. 139), which also has an umbilicate shell with fine axial and spiral striae. *Epitonium frielei* is stated to be a flat white shell, while the living animal of *E. billeeana* is bright yellow and the shell is yellow tinted with a thin brown periostracum. Also, *E. frielei* has fewer costae and its spiral ribs are weaker; consequently, the relationship between the two species is probably super-

ficial. In habitat, *E. frielei* differs in having been taken in depths of 63 to 135 fathoms off the coasts of North Carolina and Florida.

Epitonium billeeana cannot be reconciled with any of the genera currently used for Eastern Pacific or Western Atlantic Epitoniidae but the author is reluctant to create a new genus for it until there has been a complete study made of the family names on a world-wide basis and the ecological relationships are better known.

Since the publication of the original description of *Epitonium (Asperiscala) billeeana*, additional localities for the species have been reported:

Bahía de las Animas, Gulf of California, Mexico.

Several live specimens with egg masses taken by diving at 5 to 30 feet, September 1965, Don Wobber, Hillsborough, California. — Reported as common.

Punta Colorado, Guaymas area, Sonora, Mexico. From siftings taken at extreme low tide, 1 beach specimen, November 1965, S. S. Berry.

Guaymas area, Sonora, Mexico. Dredged at 40 feet, one live specimen, Mrs. Camden Ernest, San Antonio, Texas.

Cape San Lucas, Baja California del Sur, Mexico. Five live specimens on coral taken by diving at 10 feet, April 3, 1966, James H. McLean. Size record: long. 24.6 mm, lat. 15.3 mm.

Manzanillo, Mexico. Five crab specimens taken by dredging at 17 fathoms, December, 1965, Laura Shy, Westminster, California.

This species can be expected to occur throughout the entire Panamic area in shallow water.

ACKNOWLEDGMENT

For critical reading of the manuscript and helpful suggestions I am indebted to Dr. James H. McLean.

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